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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/644,422

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Brian J. Wasserman

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26890

7590

07/20/2009

JAMES M. STOVER

TERADATA CORPORATION

2835 MIAMI VILLAGE DRIVE

MIAMISBURG, OH 45342

EXAMINER

LEMIEUX, JESSICA

ART UNIT

PAPER NUMBER

3693

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DELIVERY MODE

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/644,422

**Applicant(s)**

WASSERMAN ET AL.

**Examiner**

JESSICA L. LEMIEUX

**Art Unit**

3693

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 8, 11, 13-19, 23, 26, 28-34, 38, 41 and 43-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8, 11, 13-19, 23, 26, 28-34, 38, 41 and 43-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Final Drawing Review (PTO-849)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This Non-Final Office action is in response to the application filed on August 20<sup>th</sup>, 2003 and in response to the applicant's arguments/amendments filed on April 21<sup>st</sup>, 2009. Claims 1-4, 8, 11, 13-19, 23, 26, 28-34, 38, 41 and 43-45 are pending.

***Response to Arguments***

2. Applicant's arguments, with respect to the 35 U.S.C. 101 rejection of claims 1-4, 8, 11, and 13-15 have been fully considered and are persuasive in view of the claim amendments. The 35 U.S.C. 101 rejection of claims 1-4, 8, 11, and 13-15 has been withdrawn.

3. Applicant's arguments, with respect to the objection of claim 27 have been fully considered and are persuasive in view of the claim amendment/cancellation. The objection of claim 27 has been withdrawn.

4. Applicant argues that U.S. Patent 7,249,138 to Wasserman is not a prior art reference as it's a parent patent for the application. Applicant's arguments, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. Examiner notes that even though Wasserman is not relied upon, McCann teaches the same limitations and therefore Examiner withdraws the rejection in view of Wasserman but maintains the rejection in view of McCann.

5. For sake of compact prosecution, Examiner will again address applicant's arguments/remarks from October 10<sup>th</sup>, 2008:

a. Applicant argues that Johnson does not specifically teach "a selector function that uses selection criteria specified by rules to select accounts, forecast

amounts, and attrition and propensity rates from a database," "rules used by a selector function for accessing a database," "selection of attrition rates or propensity rates from a database," or "calculation of FV or the subsequent calculation of LTV." Examiner would first like to point out that Johnson was not relied upon for the calculation of LTV. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Examiner notes that as Applicant has stated Johnson "describe[s] retrieving individual asset data from a database based on a given criteria, performing an NPV calculation." The act of "retrieving data" based on "given criteria" is in it of itself selection criteria. The rules by which this data is retrieved can be anything such as a rule to only access the required information instead of always retrieving everything and anything possible in the database. Examiner asserts that there must be some set of rules/guidelines to select information, otherwise the correct/required information wouldn't be accessed. Examiner further asserts that Johnson does teach retrieving rates (attrition rates etc). Applicant's specification conceptually defines attrition rates as "the rate at which a cash flow will be decreased" (page 8, lines 25-26). Johnson teaches a discount factor (column 9, lines 3-26), which would have inherently needed to be accessed from a database to use in the determination of NPV. One skilled in the art at the time of the invention was made would understand that a discount factor is a rate used to discount or decrease future cash flows to obtain a net present value. Therefore

it would have been obvious to one skilled in the art at the time of invention that Johnson does disclose "a selector function that uses selection criteria specified by rules to select accounts, amounts and attrition and propensity rates from a database."

Applicant states that the prior art "do[es] not refer to the calculation of FV."

Examiner notes that the equation in the Johnson reference is a Future Value ( $C_1$ ) equation solving for Net Present Value (NPV). It would have been obvious to one skilled in the art at the time the invention was made that this equation could easily be manipulated to solve for Future Value or any of the other variables in the equation. Therefore it would have been obvious to one skilled in the art at the time of invention that Johnson does disclose "the calculation of FV."

b. Applicant argues that Sulkowski does not specifically teach "a selector function that uses selection criteria specified by rules to select the accounts, forecast amounts, and attrition and propensity rates from the database," or "performing NPV and FV calculations on selected accounts using selected forecast amounts, and attrition and propensity rates, wherein results from the NPV and FV calculations are integrated to proved an LTV." Examiner would first like to point out that Sulkowski was not relied upon for a selector function that uses selection criteria specified by rules to select the accounts, forecast amounts, and attrition and propensity rates from the database, or performing NPV and FV calculations on selected accounts using selected forecast amounts, and attrition and propensity rates". In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.

See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant admits that Sulkowski teaches the calculation of a NPV for each account. As was explained above, NPV is determined by using FV and vice versa. Sulkowski further states that "the lifetime-value is thus risk-base, in that it takes the past, current and future charge-off risk of an account into consideration." The reference goes on to clarify that it "generates a net present value for each account in one or more future periods... [utilizing] an adjusted cash flow discount rate, and the number of periods into the future for which to calculate forecasted Lifetime-value" (paragraphs [0066-0067]). Examiner notes that a net present value in multiple future periods utilizing discount rates would be a future value (FV). Sulkowski further states that "the lifetime-value (LTV) is then the sum of discounted cash flows for each account" (paragraph [0069 and 0077]). Therefore it would have been obvious to one skilled in the art at the time of invention that Johnson does disclose results from the NPV and FV calculations being integrated to provide an LTV.

c. Applicant argues that Atkins "forecast amounts" are not used in the same context of Applicant's claims "namely the calculation of Net Present Value (NPV) and Future Value (FV) where the results of those calculations are integrated to provide a Life-Time Value (LTV). Applicant admits that Atkins describes a financial program utilizing the analysis and reporting of investments that takes into account forecast amounts. Atkins was relied up on to teach that forecast amounts are used as a type of selected amount found in a database to select in order to determine values and rates

regarding the asset utilizing the time value money equations. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

d. Applicant states that Choy "says nothing about selection criteria being grouped in order to combine them in dynamically generated SQL statements, or that such grouped selection criteria are processed independently and in parallel to yield output tables comprising accounts, forecast amounts, and attrition and propensity rates selected from the database for use in both Net Present Value (NPV) and Future Value (FV) calculations that are integrated to provide a Life-Time Value (LTV)." Examiner notes that these arguments are made with respect to the amended claim language. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

e. Applicant states that Foran "says nothing about processing selection criteria independently and in parallel and processing of queries or SL statements having selection criteria." Examiner notes that these arguments are made with respect to the amended claim language. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4, 8, 16-19, 23, 27, 31-34, and 38 are rejected under 35 U.S. C. 103(a) as being unpatentable over US Patent Number 7,082,411 to Johnson et al (hereinafter Johnson) in view of US Patent Number 5,852,811 to Atkins (hereinafter Atkins) in view of US Patent Application Number US2004/0039688 to Sulkowski et al (hereinafter Sulkowski) further in view of US Patent Number 5,963,939 to McCann et al. (hereinafter McCann).

As per claims 1, 16 and 31

Johnson discloses selecting accounts, amounts and attrition (discount factor) (column 9, lines 3-11) and propensity (risk) (column 9, lines 20-22 & column 16, lines 49-51) rates (asset data) from a database through a selector function, wherein the selector function uses selection criteria specified by rules to select the accounts, amounts and, and attrition and propensity rates from the database (column 4, lines 10-19) and performing one or more Net Present Value (NPV) (column 9, lines 3-26) and Future Value (FV) (C<sub>1</sub>, expected payoff) calculations on the selected accounts using the selected amounts and rates (column 9, lines 3-26 & 58-60). Examiner notes that applicant's specification conceptually defines attrition rates as "the rate at which a cash flow will be decreased" (page 8, lines 25-26). Johnson teaches a discount factor. One skilled in the art at the time the invention was made would understand that a discount factor is a rate used to discount or decrease future cash flow.

Johnson does not specifically teach the amounts comprise forecast amounts.

Atkins discloses the amounts comprise forecast amounts.

Therefore it would have been obvious to one skilled in the art at the time the invention was made that the amounts comprise forecast amounts as taught by Atkins as a type of selected amount found in a database to select in order to determine values and rates regarding the asset utilizing the time value money equations.

Johnson does not specifically teach results from the NPV and FV calculations are integrated to provide a Life-Time Value (LTV) of one or more customers.

Sulkowski teaches results from the NPV and FV calculations are integrated to provide a Life-Time Value (LTV) of one or more customers (paragraphs [0009-0010, 0027, 0066-0077 and 0104-0112]).

Therefore it would have been obvious to one skilled in the art at the time the invention was made that results from the NPV and FV calculations are integrated to provide a Life-Time Value (LTV) of one or more customers as taught by Sulkowski to



accurately evaluate future profitability of assets by taking into account present and future values.

Johnson discloses the selector function generates statements (criteria... for use in valuating other asset data) that are executed by a database management system to perform the selection of the accounts, amounts and attrition and propensity rates selected from the database (column 4, lines 10-19). Johnson does not specifically teach dynamically generating Structured Query Language (SQL) statements using the selection criteria, the selection criteria are grouped in order to combine them in the dynamically generated SQL statements, and the grouped selection criteria are processed independently and in parallel to yield output tables.

McCann teaches dynamically generating Structured Query Language (SQL) statements using the selection criteria, the selection criteria are grouped in order to combine them in the dynamically generated SQL statements, and the grouped selection criteria are processed independently and in parallel to yield output tables (column 69, lines 15-41).

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the financial processing system of Johnson, Atkins and Sulkowski to include dynamically generating Structured Query Language (SQL) statements using the selection criteria, the selection criteria are grouped in order to combine them in the dynamically generated SQL statements, and the grouped selection criteria are processed independently and in parallel to yield output tables as taught by McCann to allow a user to fully utilize the output to determine relationships between information as well as process similar selections together concurrently so that fewer passes need to be made through the tables in the relational database.

As per claims 2, 17 and 32

Johnson discloses the NPV is a net present profitability value (column 9, lines 1-2).

As per claims 3, 18 and 33

Johnson discloses the FV ( $C_1$ ) is a possible future profitability value (expected payoff) (column 9, lines 3-10).

As per claims 4, 19 and 34

Johnson discloses the selected accounts contain current profitability values of accounts for the customers (current appraisal amount) (column 18, lines 8-20). Examiner notes that  $C_0$  is the investment at time 0 and therefore it would have been obvious to one skilled in the art at the time the invention was made that a current profitability value would be the value at the present time, time 0.

As per claims 8, 23 and 38

Johnson discloses the NPV and FV calculations are based on the rules (column 4, lines 10-19 & column 9, lines 3-26 & 58-60).

As per claim 27

Johnson discloses the selector function generates statements (criteria... for use in valuating other asset data) that are executed by a database management system to perform the selection of the accounts, amounts and rates (column 4, lines 10-19).

7. Claims 13, 28 and 43 are rejected under 35 U.S. C. 103(a) as being unpatentable over US Patent Number 7,082,411 to Johnson et al (hereinafter Johnson) in view of US Patent Number 5,852,811 to Atkins (hereinafter Atkins) in view of US Patent Application Number US2004/0039688 to Sulkowski et al (hereinafter Sulkowski) further in view of US Patent Number 5,963,939 to McCann et al. (hereinafter McCann) further in view of US Patent Number 6,405,189 to Gillis (hereinafter Gillis).

As per claims 13, 28 and 43

Johnson does not specifically teach the statements are generated from one or more object-oriented parameterized templates.

Gillis teaches the statements are generated from one or more object-oriented parameterized templates (abstract & column 2, lines 6-22).

Therefore it would have been obvious to one skilled in the art at the time the invention was made that the statements are generated from one or more object-oriented parameterized templates as taught by Gillis to ensure a consistent process pertaining to each particular asset with respect to the selection of information.

8. Claims 15, 30 and 45 are rejected under 35 U.S. C. 103(a) as being unpatentable over US Patent Number 7,082,411 to Johnson et al (hereinafter Johnson) in view of US Patent Number 5,852,811 to Atkins (hereinafter Atkins) in view of US Patent Application Number US2004/0039688 to Sulkowski et al (hereinafter Sulkowski) further in view of US Patent Number 5,963,939 to McCann et al. (hereinafter McCann) in view of US Patent Number 6,405,189 to Gillis (hereinafter Gillis) further in view of US Patent Number 6,625,624 to Chen et al. (hereinafter Chen).

As per claims 15, 30 and 45

Johnson does not specifically teach the statements include one or more macros.

Gillis teaches the statements include plain text (column 2, lines 14-16). Gillis however does not specifically teach one or more macros.

Chen teaches plain text contains macro (column 5, lines 49-50).

Therefore it would have been obvious to one skilled in the art at the time the invention was made that the statement include one or more macros as taught by Gillis and Chen to enable the statements to be executable.

9. Claims 11, 14, 26, 29, 41 and 44 are rejected under 35 U.S. C. 103(a) as being unpatentable over US in view of US Patent Number 5,852,811 to Atkins (hereinafter Atkins) in view of US Patent Application Number US2004/0039688 to Sulkowski et al (hereinafter Sulkowski) further in view of US Patent Number 5,963,939 to McCann et al. (hereinafter McCann) in view of US Patent Number 5,551,027 to Choy et al (hereinafter Choy).

As per claims 11, 26 and 41

Johnson does not specifically teach the grouped selection criteria comprise similar selection criteria.

Choy teaches teach the grouped selection criteria comprise similar selection criteria (column 2, lines 26-29 & 36-43).

Therefore it would have been obvious to one skilled in the art at the time the invention was made that teach the grouped selection criteria comprise similar selection criteria as taught by Choy to improve efficiency in selecting the same criteria.

As per claims 14, 29 and 44

Johnson does not specifically teach the statements are optimized so that the statements are executed in parallel by the database management system.

Choy teaches the statements are optimized so that the statements are executed in parallel by the database management system (column 7, lines 12-34 & column 25, lines 24-54).

Therefore it would have been obvious to one skilled in the art at the time the invention was made that the statements are optimized so that the statements are executed in parallel by the database management system as taught by Choy in order to process similar selections together concurrently so that fewer passes need to be made through the tables in the relational database.

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA L. LEMIEUX whose telephone number is (571)270-3445. The examiner can normally be reached on Monday-Thursday 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Kramer can be reached on 571-272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James A. Kramer/  
Supervisory Patent Examiner, Art Unit 3693

Jessica L Lemieux  
Examiner  
Art Unit 3693

/J. L. L./  
Examiner, Art Unit 3693  
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